

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) A system that facilitates data exchange with industrial devices *via* a standard database connection, comprising:

a mapping component that represents computer readable data stored within an industrial device as a database table, wherein the industrial device data is retrieved from a data structure, the elements of the data structure are mapped to respective record columns of the database table;

an intelligence component that facilitates generating and mapping data to the at least one database table by determining when, how and which data structures should be transformed to corresponding database tables; and,

an interface component that provides access to the database table *via* the standard database connection.

2. (Original) The system of claim 1, the standard database connection is a Java DataBase Connectivity (JDBC) connection.

3. (Original) The system of claim 1, the database table is a relational database table.

4. (Cancelled)

5. (Original) The system of claim 1, the database table is accessed *via* one or more remote systems that employ disparate operating systems.

6. (Original) The system of claim 5, the disparate operating systems include one or more of UNIX, HPUX, IBM, AIX, Linux and Microsoft.

7. (Original) The system of claim 1, the access includes read and write access.

8. (Original) The system of claim 1, the data stored in the database table is transferred between the industrial device and a remote system as a binary file.
9. (Original) The system of claim 1, the interface component facilitates discovery of industrial device data and the database table.
10. (Currently Amended) An industrial control device that enables access to computer readable data stored therein *via* a standard database connection, comprising:
 - an interface that facilitates reading from and writing to one or more relational database tables stored within the industrial control device, wherein data from the industrial control device is retrieved from a data structure, the elements of the data structure are linked to corresponding record columns of the database table;
 - a transformation component that maps one or more data structures associated with the industrial control device to the one or more relational database tables; and
 - an intelligence component that determines when, how and which data structures should be transformed to corresponding database tables.
11. (Original) The system of claim 10, the transformation component is executed within one of a module of the industrial control device, a host computer, and the interface.
12. (Original) The system of claim 10, the transformation component is executed without knowledge of industrial device data layout.
13. (Original) The system of claim 10, the one or more relational database table are concurrently accessed for at least one of transaction commitment, transaction rollback and transaction termination.
14. (Original) The system of claim 10, the standard database connection is employed to establish a connection with the interface by a remote device.

15. (Original) The system of claim 14, the standard database connection is an SQL-compliant connection.
16. (Original) The system of claim 14, the standard database connection is a Java DataBase Connectivity (JDBC) connection.
17. (Previously Presented) The system of claim 16 further comprise utilizing a JDBC Open or Select command(s) to read data from the one or more database tables and a JDBC Post command(s) to write data to the one or more database tables.
18. (Original) The system of claim 10 further comprises an intelligence component that facilitates mapping, reading and writing the industrial device data.
19. (Currently Amended) A method that facilitates access to industrial devices data *via* a standard database connection, comprising:
 retrieving industrial device data, wherein the industrial device data is retrieved from a data formation, the elements of the data formation are linked to respective record columns of the database table;
 generating and mapping data to at least one database table by employing an intelligence component that determines when, how and which data should be transformed to corresponding database tables; and
 providing access to the data in the at least one database table *via* a Java DataBase Connectivity (JDBC) connection.
20. (Original) The method of claim 19 further comprises automatically updating the at least one database table when industrial control data changes.
21. (Cancelled)

22. (Original) The method of claim 19 further comprises enabling access to the data *via* disparate operating systems including one or more UNIX, HPUX, IBM, AIX, Linux and Microsoft.
23. (Currently Amended) A method for accessing industrial device data, comprising:
establishing a connection with an industrial device *via* an SQL-compliant database connection, wherein the industrial device data is retrieved from a data structure, the parts of the data structure are mapped to corresponding record columns of the database table;
discovering relational database tables stored within the industrial device;
utilizing an intelligence component to facilitate data exchange with the industrial device;
and
accessing the data within the relational database tables.
24. (Original) The method of claim 23, the SQL-compliant database connection is a Java DatasBase Connectivity (JDBC) connection.
25. (Original) The method of claim 23, accessing data includes one of committing a transaction, rolling back a transaction and aborting a transaction.
26. (Cancelled)
27. (Original) The method of claim 23 further comprises transferring data as compact binary packets.
28. (Original) The method of claim 23 further comprises concurrently accessing more than one of the relational databases.
29. (Currently Amended) A system that enables access to database tables associated with industrial devices, comprising:
means for opening a database connection with the industrial device;

means for mapping data from at least one data structure to at least one database table by employing an intelligence component that determines when, how and which computer readable data structure should be transformed to corresponding database tables, wherein data from the industrial device is retrieved from a data structure, the elements of the data structure are mapped to respective record columns of the database table;

means for discovering the at least one database table; and

means for retrieving suitable protocols and configuration and accessing the discovered database tables.